OptoSupply
Light It Up

Xeon 3 Power 940nm Infrared Emitter LED

OSI5XNE3E1E

VER C.0

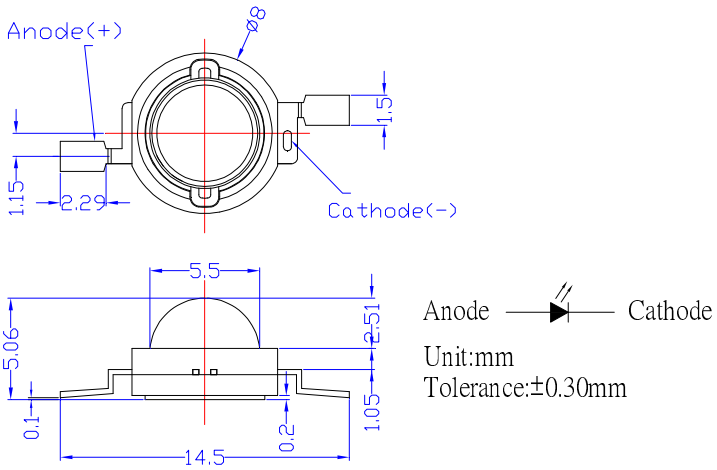
■Features

- Highest luminous flux
- Super energy efficiency
- Very long operating life
- Superior ESD protection

■Applications

- Night Vision
- Camera
- Outdoor./Indoor applications

■Outline Dimension

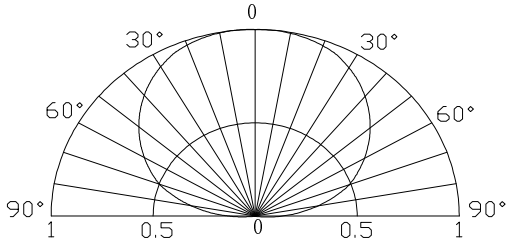


■Absolute Maximum Rating (Ta=25℃)

Item	Symbol	Value	Unit
DC Forward Current	I_F	1,000	mA
Pulse Forward Current*	I_{FP}	7,000	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	2,000	mW
Operating Temperature	Topr	-30 ~ +85	℃
Storage Temperature	Tstg	-40~ +100	℃
Lead Soldering Temperature	Tsol	260℃/5sec	-

*Pulse width Max.10ms Duty ratio max 1/10

■Directivity



■Electrical -Optical Characteristics (Ta=25℃)

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
DC Forward Voltage	V_F	I_F=700mA	1.2	1.5	2.0	V
DC Reverse Current	I_R	V_R=5V	-	-	10	μA
Peak Wavelength	λ_P	I_F=700mA	-	940	-	nm
Radiant Intensity	Ie	I_F=700mA	50	68	-	mW/Sr
50% Power Angle	$2\theta_{1/2}$	I_F=700mA	-	140	-	deg

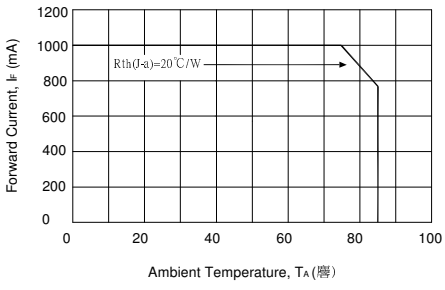
*1 Tolerance of measurements of peak wavelength is ±1nm

*2 Tolerance of measurements of radiant intensity is ±15%

*3 Tolerance of measurements of forward voltage is±0.1V

Note: Advises please attach heat sink to use if Power Dissipation is more than 0.5W.

■Forward Operating Current (DC)



■ **Soldering Heat Reliability :**

Reflow soldering Profile

· Reflow soldering should not be done more than two times.

· When soldering, do not put stress on the LEDs during heating.

· After soldering, do not warp the circuit board.

· Repairing should not be done after the LEDs have been soldered.When repairing is unavoidable, a double-head soldering iron should be used. It should be confirmed beforehand whether the **characteristics of the LEDs will or will not be damaged by repairing.**

Solder
Average ramp-up rate = 3ºC/sec. max.
Preheat temperature: 150º~180ºC
Preheat time = 120 sec. max.
Ramp-down rate = 6ºC/sec. max.
Peak temperature = 220ºC max.
Time within 3ºC of actual peak temperature = 25 sec. max.
Duration above 200ºC is 40 sec. max.